

WHAT IS CLAIMED IS

1. An imaging device including integrally an imaging element to be mounted on a substrate and an optical element having an imaging lens section for providing a light-receiving surface of the imaging element with optical information, wherein
5 the substrate has an opening section;
the imaging element is fastened on the substrate so as to close the opening section with a surface including the light-receiving surface; and
10 the optical element is arranged so as to come into contact with the upper surface of the imaging element by way of the opening section.
2. The imaging device according to claim 1, wherein connection means for establishing electrical connection between
15 the substrate and the imaging element is provided in an overlap between the substrate and the imaging element; and the optical element is in contact with areas on the upper surface of the imaging element other than the light-receiving surface.
3. The imaging device according to claim 1, wherein the
20 optical element remaining in contact with the upper surface of the imaging element by way of the opening section (1a) is bonded to the substrate by means of an adhesive.
4. The imaging device according to claim 3, wherein an adhesive used for bonding the optical element to the substrate
25 is a thermoplastic-resin-based adhesive.
5. The imaging device according to claim 1, wherein a contact area where the optical element is in contact with the imaging element surrounds the overall periphery of the light-receiving surface.
- 30 6. The imaging device according to claim 1, further comprising imaging element sealing resin which is arranged so as to close a boundary between the periphery of the imaging element and the substrate and which exhibits an adhesive strength

improvement function, a moisture-absorption prevention function, an extraneous material entry prevention function, and a light-shielding function.

7. The imaging device according to claim 1, further
5 comprising optical element sealing resin which covers the optical element remaining in contact with the upper surface of the imaging element, thereby integrating the optical element with the substrate, and which has an extraneous material entry prevention function, a moisture-absorption prevention function, and a shock
10 dampening function.

8. The imaging device according to claim 7, wherein the optical element sealing resin has a light-shielding function.

9. An imaging device including an imaging element which receives optical information and generates imaging data and an
15 image processing peripheral element for processing the imaging data, the device comprising:

a substrate having an opening section formed therein;
the peripheral element is secured on the substrate so as to close the opening section; and
20 the imaging element is provided in a cavity defined by the opening section and the peripheral element.

10. The imaging device according to claim 9, further comprising a third element formed by means of stacking the peripheral element and the imaging element.

25 11. The imaging device according to claim 10, wherein the third element is a second imaging element capable of photographing an image in a different direction from that in which the imaging element takes an image.

12. An imaging device having an imaging element to be mounted
30 to a substrate, wherein

the substrate has a first section having an outer dimension equal to or smaller than that of the imaging element as well as

an opening section formed therein and a second section having an interface connection section formed therein;

the imaging element is secured on the first section such that a surface including a light-receiving surface closes the opening section; and

a circuit pattern is formed in the first section for electrically connecting the imaging element to the interface connection section provided on the second section.

13. The imaging device according to claim 12, further comprising an optical element which is provided with an imaging lens section for providing optical information on the light-receiving surface and is arranged so as to come into contact with an upper surface of the imaging element by way of the opening section of the substrate.

14. The imaging device according to claim 13, wherein the optical element which is in contact with the upper surface of the imaging element by way of the opening section (14a) is bonded to the substrate by means of an adhesive.

15. The imaging device according to claim 13, wherein a contact area where the optical element is in contact with the imaging element surrounds the overall periphery of the light-receiving surface.

16. The imaging device according to claim 13, further comprising optical element sealing resin which covers the optical element remaining in contact with the upper surface of the imaging element, thereby integrating the optical element with the substrate.

17. The imaging device according to claim 12, wherein a portion of the imaging element is not coated with any sealing resin and remains uncovered.

18. The imaging device according to claim 17, wherein the uncovered portion of the imaging element is mounted to a main substrate by means of an elastic adhesive.